

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 25, 2016

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending November 25, 2016

Plutonium Facility–Infrastructure: Last month, the NNSA’s Office of Recapitalization approved the analysis of alternatives for phase III of the TA-55 Reinvestment Project (TRP III). The decision endorsed moving forward with a full fire alarm system replacement with the addition of a second alarm panel for the non-nuclear facilities. This action solidifies the fact that TRP III will not include an upgrade to a safety class active confinement ventilation system or support separation of the non-nuclear facilities from the firewater loop. Both of these sub-projects are identified in the TA-55 Project Execution Strategy as required to help further reduce the mitigated offsite consequences from seismically-induced events. Both sub-projects are also identified in the approved safety basis as planned improvements, as well as listed as compensatory measures associated with acknowledged vulnerabilities in the existing safety systems. The path forward for these sub-projects is currently unclear.

Earlier this month, LANL personnel hosted a multi-day deep dive focused on conveying the laboratory’s infrastructure needs for the NNSA Office of Safety, Infrastructure and Operations. With respect to the Plutonium Facility, the presentations highlight needs associated with the failing wet vacuum material handling system, several safety and compliance projects to ensure the operability of safety systems, ventilation and confinement system upgrades, fire wall repairs, firewater loop component replacements, vault rack upgrades, and revitalization of the trolley system. Many of these identified needs have an uncertain path forward.

Area G–Inappropriately Remediated Nitrate Salts (RNS): On Tuesday, the NNSA Cognizant Secretarial Officer unconditionally approved the safety evaluation report for revision 6.1 of the Evaluation of the Safety of the Situation (ESS) concerning the storage of the RNS wastes. This version includes some corrections to revision 6 (see 8/12/16 weekly) originally submitted on April 21, 2016, and primarily provides analysis and controls for the wildland fire scenario and installation of pressure relief devices on the remaining RNS contained in pipe overpacks.

The Site Representatives note that the lengthy development and approval cycle for revision 6.1 demonstrates the need for LANL to adjust their safety basis processes to ensure that safety controls identified as necessary during the development of an ESS are implemented as soon as they are determined to be necessary. In this case, revision 6.1 identified four new safety controls. In the absence of Area G management’s proactive intervention earlier this summer, the controls identified as needed would not have been implemented until the coming weeks—well past their intended use for prime wildfire season.

Transuranic Waste Facility (TWF)–Safety Basis: On Monday, NNSA personnel completed the last of several days of meetings for their Senior Review Board to reach their conclusions on the final safety basis for this new facility. The safety evaluation report is expected next week. This approval, as well as the revision 6.1 discussed above, is expected to free up NNSA Field Office safety basis personnel to address other pressing documents waiting on approval, including the revised attachments for RNS treatment (submitted 10/21/16), the ESS for Flanged Tritium Waste Containers (submitted 10/13/16), and the ESS for waste inventory discrepancies (submitted 5/13/16).